



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/802,296 | 03/08/2001 | Scott Alan Stratmoen | NORTH-424A/A | 3180 |

7663 7590 06/13/2005

STETINA BRUNDA GARRED & BRUCKER
75 ENTERPRISE, SUITE 250
ALISO VIEJO, CA 92656

| |
|----------|
| EXAMINER |
|----------|

APPIAH, CHARLES NANA

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2686

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/802,296 | Applicant(s) STRATMOEN ET AL. | |
| | Examiner Charles Appiah | Art Unit 2686 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-41 and 44-72 is/are pending in the application.
4a) Of the above claim(s) 69 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 46-67 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-41,44-46,68 and 70-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 29-41, 44, 45 and 46 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed on January 10, 2005 with respect to claims 1 and 68 have been fully considered but they are not persuasive.

Applicant seem to argue that, Alameh fails to disclose the limitation of the "sheet covering the man machine interface when the sheet is in the folded position" and that if the sheet were to cover the man machine interface (i.e., the electronic port), then the device's programs and downloaded data would not be accessible to the user. However, based on Applicant's specification, the man machine interface includes display, push buttons and microphone and as such Alameh's teaching still meets the sheet covering the man machine interface to protect the man machine interface from an environment.

Regarding applicant's argument that Alameh et al. does not disclose a sheet that is generally coplanar with the device when in the folded position and the unfolded position", however, examiner would like to draw applicant's attention to the fact that such a limitation is not and specifically claim 72 calls for "the sheet is generally coplanar with the device body when in the folded position" and, which limitation is clearly met by Alameh as illustrated in Fig. 6.

Claim Rejections - 35 USC § 112

2. Claims 1-28, 68, 70, 71 and 72 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new limitation “sized and configured to cover the man-machine interface to protect the interface from an environment” is not adequately supported by the original specification. This constitutes new matter in claims 1 and 68 since it is not clear and adequately disclosed how the sheet is sized and configured to cover the man machine interface to protect the interface from an environment. Applicant's original specification as well as the specification as amended fails to show any link between the folded position of the sheet as illustrated in Fig. 6 (according to applicant) and the protection of the man machine interface which includes display, push buttons and microphone (see specification).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 4, 8, 11, 12, 17, 21, 25 and 26, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al. (6,348,897)** in view of **Lockhart (6,173,189)**.

Regarding claims 1 and 25, Alameh discloses a communication system comprising: an inherent transmitter base station (see col. 3, lines 7-10), at least one

Art Unit: 2686

wireless communications device having an edge and dimensions to the length, width and thickness of a credit card (see col. 3, lines 43-50), the at least one device having components embedded within, including: a receiver, a man-machine interface, a processor, a power supply (see col. 3, lines 14-43), and a thin flexible sheet having an antenna embedded therewithin, and being pivotally connected to the edge of the at least one device (see col. 4, lines 1-32), the sheet being pivotable substantially adjacent the edge to alternate between folded (see Fig. 6, see col. 7, lines 1-22), and unfolded positions (see Figs. 2, 4), the sheet being generally coplanar with the at least one device when in the folded position (see Fig. 6, col. 6, lines 32-39), the sheet being generally angularly displaced from the at least one device when in the unfolded position (see Fig. 4), wherein the sheet is deployable to the unfolded position to facilitate communication between the at least one wireless communications device and the base station (feature of transceiver circuitry operating in any well known modes of operation for transceivers, such as a GSM or PCS cellular telephone system, see col. 3, line 62 to col. 4, line 1). Alameh fails to disclose a single forward channel transmitter base station.

Lockhart discloses a base station which is capable of receiving reverse channel data using multi over the air protocols and include a single forward channel transmitter for forward channel transmissions in at least a first over the air protocol (see Fig. 2, col. 3, lines 40-47, col. 4, lines 52-61).

It would therefore have been obvious to one of ordinary skill in the art to use Lockhart's base station having a forward channel transmitter in Alameh's

Art Unit: 2686

communication system in order to ensure that forward channel transmissions are carried out appropriately using the desired over the air protocol such as an interrogation protocol.

Regarding claim 4, Alameh further discloses wherein the at least one wireless communications device further comprising a transmitter (see col. 3, lines 33-43).

Regarding claim 8, Alameh further discloses wherein the man machine interface comprises a display (see col. 3, lines 25-27).

Regarding claims 11-12, Alameh further discloses wherein the man machine interface comprises at least one pushbutton (keypad), and the power supply comprises a primary battery (see col.3, lines 24-27).

Regarding claim 17, Alameh further discloses wherein the antenna is a monopole antenna (see col. 8, lines 20-26).

Regarding claim 21, Alameh further discloses wherein the at least one wireless communications device is structurally flexible (see col. 3, lines 43-50).

Regarding claim 26 Alameh's teaching of the phone having an overall thickness of about 5mm (see col. 3, lines 47-50) meets the feature of the at least one wireless communications device having a thickness of about .79mm.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** and **Lockhart** as applied to claim 1 above, and further in view of **Talisa et al**. (5,878,334).

Regarding claim 2, Alameh and Lockhart do not disclose that the base station comprises a high temperature superconductivity receiver.

Talisa teaches using a high temperature super conducting receiver that provides minimal loss and compact receiver front-end components (see col. 1, lines 8-12).

It would therefore have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart's base station to comprise Talisa's receiver in order to provide minimal loss and compact receiver front-end components.

6. Claims 5-7, 10, 13-16, 22, 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al and Lockhart in view of well known prior art (Official Notice)**.

Regarding claim 5, Alameh as modified by Lockhart discloses all of the limitations of claim 1, but do not specifically disclose that the receiver comprises a frequency shift-keying receiver.

Examiner takes Official Notice that is very well known in the art that frequency shift keying receivers have high immunity to noise and interference and as such it would have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart such that the receiver is a frequency shift keying receiver for the benefit of providing high immunity to noise and interference.

Regarding claims 6 and 7, Alameh and Lockhart meet all limitations as applied above to claim 1, but the combination fail to explicitly teach that the receiver comprises a direct sequence spread spectrum receiver and that the direct sequence spread spectrum modulator comprises differential phase shift keying.

However, it is very well known in the art that direct sequence spread spectrum communication is highly resistant to RF interference, fading, multi-path, and jamming,

Art Unit: 2686

and that direct sequence spread spectrum modulation techniques using phase shift keying provides a low error rate and is simple to implement.

Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart, such that the receiver comprises a direct sequence spread spectrum modulator using differential phase shift keying, in order to provide communication, which is highly resistant to RF interference, fading, multi-path and jamming which is easy to implement and has low error rate.

Regarding claim 10, Alameh further discloses wherein the man machine interface comprises a display (see col. 3, lines 25-27), but the combination of Alameh and Lockhart fail to explicitly teach that the display is capable of displaying textual and graphical information.

However, examiner takes Official Notice that it is very well known in the art to provide telephone displays having graphical and textual information display capability and as such it would have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart's telephone device such that the display is capable of displaying both textual and graphical information, in order to provide more information and options to a user.

Regarding claims 13-15, Alameh and Lockhart meet all limitations as applied to claims 1, and 12 above, but do not specifically teach that the primary battery is a lithium non-rechargeable battery and that the power supply comprises a secondary battery, which is a lithium rechargeable battery.

However, it is a very well known practice in the art that a lithium battery is light weight and has good conductivity and high voltage and also it is known in the art to provide secondary or back-up rechargeable sources of power to portable communications device in order to keep the device powered when a primary power supply fails, and as such it would therefore have been obvious to one of ordinary skill in the art to use a primary power source such as a lithium non-rechargeable battery as well as a secondary battery in order to provide a power source which is light, has good conductivity and high voltage and also provision of backup power in case the primary power source fails.

Regarding claim 16, Alameh as modified by Lockhart fail to teach that the power supply comprises a constant current source charger.

Examiner takes Official Notice that in the art to provide a charger to constantly keep a secondary power source supplied and a low dropout analog regulator extends the life of a battery. Therefore it would have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart, such that the power supply comprises a low dropout analog regulator in order to extend the life of the battery for powering the electronic device.

Regarding claim 22, Alameh and Lockhart discloses all the limitations of claim 1, but does not disclose that the device can communicate in the range of about 30 kilometers. However, it is well known in the art to have communication devices having a range of about 30 kilometers.

It would therefore have been obvious to one of ordinary skill in the art to have a communication system having a range such as 30 kilometers in order to provide the user with a high degree of mobility.

Regarding claims 23 and 28, Alameh as modified by Lockhart fails to disclose that the base station is located in an aircraft. Wherein the aircraft is a remote controlled drone flying within 30 miles of the at least one wireless communication device. However, it is very well known in the art to use satellite base stations to provide coverage to wireless telephones in remote and secluded areas. It would therefore have been obvious to one of ordinary skill in the art to locate a base stations in any limited area such as in an aircraft, in order to provide communications in that limited area such as in a remote controlled aircraft.

Regarding claim 27, Alameh teaches utilizing the phone as a credit card sized phone as represented by Figs 1-9 with such a phone having a volume of about 24cc with an overall thickness of about 5mm (including battery), (see col. 3, lines 33-50). But Alameh and Lockhart, however, fail to specifically teach that the credit card-sized wireless communication system has a length of about 9.6mm, a width of about 6.4mm

However, since Alameh teaches a single conveniently carried device that combines the versatility of a credit card and wireless telephonic communications, it would have been obvious to one of ordinary skill in the art to provide the conveniently carried credit card-sized device with any convenient dimensions subject to design and circuit constraints.

Art Unit: 2686

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** and **Lockhart** as applied to claim 8 above, and further in view of **Cheung et al. (6,541,908)**.

Regarding claim 9, Alameh and Lockhart fail to teach that the display is a thin polymer emissive display.

Cheung discloses the manufacture of electronic light emissive displays. According to Cheung combining an emissive display in which the light emitting medium comprises a light emitting organic polymer (see col. 10, lines 25-53), with control electronics is particularly useful for miniature display applications which provides high resolution and low cost particularly desired for wireless or mobile applications where low power and high efficiency can minimize weight and increase battery life (see col. 4, lines 5-37).

It would therefore have been obvious to one of ordinary skill in the art to provide the organic polymer emissive display application as the display in Alameh and Lockhart's communication device in order to have a miniature display with high resolution and low cost.

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** and **Lockhart** as applied to claim 1 above, and further in view of **Spall et al. (6,097,934)**.

Regarding claims 18 and 19 Alameh as modified by Lockhart do not specifically disclose that the antenna is either dipole or patch antenna.

Spall discloses that monopole; dipole and patch antennas are all suitable for use with radiotelephones (see col. 5, lines 31-41).

It would therefore have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart with Spall's antennas such that the antenna is either a dipole or patch antenna, in order to provide a suitable antenna as desired to provide the portable device with the proper application.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** and **Lockhart** as applied to claim 1 above, and further in view of **Kikinis (5,728,031)**.

Regarding claim 20, Alameh further discloses that the device comprises a microphone (see col. 3, lines 14-27). Alameh as modified by Lockhart do not disclose that the device comprises an integrated broadband processor. However, it is a well-known practice in the art to provide a communication device with an integrated broadband processor, in order to provide the user with the capability to run high-bandwidth applications. It would therefore have been obvious to one of ordinary skill in the art to use an integrated broadband processor, in order to provide the user the capability to run high-bandwidth applications.

Alameh and Lockhart as modified do not disclose that the device has voice-response architecture. Kikinis discloses a wireless communications device that comprises a voice-response architecture which allows a user to input information into the device via voice (see col. 17, line 53 to col. 18, line 3).

It would therefore have been obvious to one of ordinary skill in the art to modify Alameh, Lockhart with Kikinis, such that the device has a voice response capability in order to provide a user with optional convenient method for entering information into the device.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al and Lockhart** as applied to claim 1 above, and further in view of **Dennison et al. (5,235,633)**.

Regarding claim 24, Alameh as modified by Lockhart fail to teach that the wireless communications device receives its location from GPS and uploads the location information to the base station.

Dennison discloses a wireless telephone that receives its location from a GPS system and uploads the location information to a base station, for the purpose of handing off the telephone to a cell site that is the most appropriate for its location (see abstract).

It would therefore have been obvious to provide GPS for providing location that is uploaded to a base station for the benefit of handing off the device to a cell site that is appropriate and provides good quality communications.

11. Claims 29, 30, 35, 36, 68, 70, 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable by **Alameh et al. (6,348,897)** in view of **Nelson et al. (6,377,218)**.

Regarding claim 29, Alameh discloses a communications device comprising a flexible smart card having a length, width, and thickness similar to the dimensions of a credit card (see col. 3, lines 43-50), the smart card having components embedded

Art Unit: 2686

within including: a receiver, an antenna (see col. 4, lines 1-32), a man-machine interface, a processor, and a power supply (see col. 3, lines 14-43), wherein the antenna comprises a monopole (see col. 5, lines 30-35), antenna embedded on a thin flexible sheet (see col. 3, lines 14-43), the sheet hinged to and pivotable about an edge of the smart card such that the monopole antenna may be deployed by pivoting the sheet about the edge (see Figs. 2, 4). Alameh fails to specifically disclose wherein the flexibility of the card is equal to about the flexibility of the sheet.

Nelson discloses a peripheral component providing multiple types of interfaces and includes a resilient antenna, which is operable to conform to fit inside the housing, and when extracted, the antenna is operable to substantially to a predetermined shape for optimizing reception and transmission of a wireless signal (see col. 2, lines 8-34). According to Nelson, the antenna is made of a material which conforms to the shape of the housing so that it may easily be pushed into or inserted into the housing, with the antenna being made from a suitable material such that when it is extracted from the housing it will return to a predetermined position and that the antenna is constructed out of a resilient and flexible metal, such as is often used to join the earpiece of stereo headphones (see col. 6, lines 1-15).

It would therefore have been obvious to one of ordinary skill in the art to use Nelson's flexible and resilient antenna construction material with Alameh's system in order to have an antenna, which possesses the qualities necessary to return substantially to a predetermined shape after resting within the housing for extended periods of time.

Regarding claim 30, Alameh further discloses a transmitter embedded within the smart card (see col. 3, lines 64-67).

Regarding claims 35 and 36, Alameh further discloses the man machine interface comprises at least one push button (feature of keypad), and the power supply comprises a primary battery (see col. 3, lines 22-27).

Regarding claim 68, Alameh discloses a wireless communication device communicable with a base station (see col. 3, lines 7-10), the device body having an edge and dimensions similar to the length, width and thickness of a credit card (see col. 3, lines 43-50), the device body having components embedded within, including: a receiver, a man-machine interface, a processor, a power supply (see col. 3, lines 14-43), and a thin flexible sheet having an antenna embedded therewithin, and being pivotally connected to the edge of the at least one device (see col. 4, lines 1-32), the sheet being pivotable substantially adjacent the edge to alternate between folded (see Fig. 6, see col. 7, lines 1-22), and unfolded positions (see Figs. 2, 4), the sheet being generally coplanar with the at least one device when in the folded position (see Fig. 6, col. 6, lines 32-39), the sheet being generally angularly displaced from the at least one device when in the unfolded position (see Fig. 4), wherein the sheet is deployable to the unfolded position to facilitate communication between the at least one wireless communications device and the base station (feature of transceiver circuitry operating in any well known modes of operation for transceivers, such as a GSM or PCS cellular telephone system, see col. 3, line 62 to col. 4, line 1).

Regarding claims 70 and 71, the combination of Alameh and Nelson further discloses wherein the antenna is pivotable about the edge between an unfolded position and a folded position, and the card is conformable to the sheet to the sheet when the antenna is in the folded position as well as the device body is flexible, and the body is conformable to the sheet as taught by Nelson (see col. 5, lines 50-59).

Regarding claim 72, Alameh further discloses wherein the sheet is generally coplanar with the device body when in the folded position (see Fig. 5).

12. Claims 31-33, 37-39, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al.**

Regarding claim 31, Alameh discloses all of the limitations of claim 29, but do not specifically disclose that the receiver comprises a frequency shift-keying receiver.

Examiner takes Official notice that is very well known in the art that frequency shift keying receivers have high immunity to noise and interference and as such it would have been obvious to one of ordinary skill in the art to modify Alameh such that the receiver is a frequency shift keying receiver for the benefit of providing high immunity to noise and interference.

Regarding claim 32, Alameh meets all limitations as applied above to claim 30, but fails to explicitly teach that the receiver comprises a direct sequence spread spectrum receiver and that the direct sequence spread spectrum modulator comprises differential phase shift keying.

However, it is very well known in the art that direct sequence spread spectrum communication is highly resistant to RF interference, fading, multi-path, and jamming,

Art Unit: 2686

and that direct sequence spread spectrum modulation techniques using phase shift keying provides a low error rate and is simple to implement.

Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art to modify Alameh, such that the receiver comprises a direct sequence spread spectrum modulator using differential phase shift keying, in order to provide communication, which is highly resistant to RF interference, fading, multi-path and jamming which is easy to implement and has low error rate.

Regarding claim 33, Alameh further discloses wherein the man machine interface comprises a display (see col. 3, lines 25-27), but Alameh fails to explicitly teach that the display is capable of displaying textual and graphical information.

However, examiner takes Official Notice that it is very well known in the art to provide telephone displays having graphical and textual information display capability and as such it would have been obvious to one of ordinary skill in the art to modify Alameh's telephone device such that the display is capable of displaying both textual and graphical information, in order to provide more information and options to a user.

Regarding claims 37-39, Alameh meets all limitations as applied to claim 29 above, but do not specifically teach that the primary battery is a lithium non-rechargeable battery and that the power supply comprises a secondary battery, which is a lithium rechargeable battery.

However, it is a very well known practice in the art that a lithium battery is light weight and has good conductivity and high voltage and also it is known in the art to provide secondary or back-up rechargeable sources of power to portable

communications device in order to keep the device powered when a primary power supply fails, and as such it would therefore have been obvious to one of ordinary skill in the art to use a primary power source such as a lithium non-rechargeable battery as well as a secondary battery in order to provide a power source which is light, has good conductivity and high voltage and also provision of backup power in case the primary power source fails.

Regarding claim 40, Alameh fails to teach that the power supply comprises a constant current source charger.

Examiner takes Official Notice that in the art to provide a charger to constantly keep a secondary power source supplied and a low dropout analog regulator extends the life of a battery.

Therefore it would have been obvious to one of ordinary skill in the art to modify Alameh, such that the power supply comprises a low dropout analog regulator in order to extend the life of the battery for powering the electronic device.

Regarding claim 41, Alameh teaches utilizing the phone as a credit card sized phone as represented by Figs 1-9 with such a phone having a volume of about 24cc with an overall thickness of about 5mm (including battery), (see col. 3, lines 33-50). But Alameh and Lockhart, however, fail to specifically teach that the credit card-sized wireless communication system has a length of about 9.6mm, a width of about 6.4mm

However, since Alameh teaches a single conveniently carried device that combines the versatility of a credit card and wireless telephonic communications, it would have been obvious to one of ordinary skill in the art to provide the conveniently

Art Unit: 2686

carried credit card-sized device with any convenient dimensions subject to design and circuit constraints.

13. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** as applied to claim 33 above, and further in view of **Cheung et al. (6,541,908)**.

Regarding claim 34, Alameh fails to teach that the display is a thin polymer emissive display.

Cheung discloses the manufacture of electronic light emissive displays. According to Cheung combining an emissive display in which the light emitting medium comprises a light emitting organic polymer (see col. 10, lines 25-53), with control electronics is particularly useful for miniature display applications which provides high resolution and low cost particularly desired for wireless or mobile applications where low power and high efficiency can minimize weight and increase battery life (see col. 4, lines 5-37).

It would therefore have been obvious to one of ordinary skill in the art to provide the organic polymer emissive display application as the display in Alameh's communication device in order to have a miniature display with high resolution and low cost as taught by Cheung.

14. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** as applied to claim 29 above, and further in view of **Spall et al. (6,097,934)**.

Regarding claim 44 Alameh's Fig. 2 illustrates an antenna affixed to one at least one of the front side and the backside of the phone but Alameh does not

specifically disclose a patch antenna affixed to at least one of a front side and backside of the smart card.

Spall discloses that different kinds of antennas such as monopole; dipole and patch antennas are all suitable for use with radiotelephones (see col. 5, lines 31-41).

It would therefore have been obvious to one of ordinary skill in the art to modify Alameh and Lockhart with Spall's antennas such that the antenna is either a dipole or patch antenna, in order to provide a suitable antenna as desired to provide the portable device with the proper application.

15. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** as applied to claim 29 above, and further in view of **Kikinis (5,728,031)**.

Regarding claim 45, Alameh further discloses that the device comprises a microphone feature as well as a processor (see col. 3, lines 14-27). Alameh does not disclose that the device comprises an integrated broadband processor. However, it is a well-known practice in the art to provide a communication device with an integrated broadband processor, in order to provide the user with the capability to run high-bandwidth applications. It would therefore have been obvious to one of ordinary skill in the art to use an integrated broadband processor, in order to provide the user the capability to run high-bandwidth applications.

Alameh as modified do not disclose that the device has voice-response architecture. Kikinis discloses a wireless communications device that comprises a voice-response architecture which allows a user to input information into the device via voice (see col. 17, line 53 to col. 18, line 3).

It would therefore have been obvious to one of ordinary skill in the art to further modify Alameh as modified with Kikinis, such that the device has a voice response capability in order to provide a user with optional convenient method for entering information into the device.

16. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Alameh et al** as applied to claim 29 above, and further in view of **Dennison et al. (5,235,633)**.

Regarding claim 46, Alameh fails to teach that the wireless communications device receives its location from GPS and uploads the location information to the base station.

Dennison discloses a wireless telephone that receives its location from a GPS system and uploads the location information to a base station, for the purpose of handing off the telephone to a cell site that is the most appropriate for its location (see abstract).

It would therefore have been obvious to provide GPS for providing location that is uploaded to a base station for the benefit of handing off the device to a cell site that is appropriate and provides good quality communications.

Allowable Subject Matter

17. Claims 47-67 are allowed.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Quinn et al. (6,538,606) discloses an antenna module for a computer system with a slot for the antenna module.

Camp, Jr. et al. (5,867,131) discloses an antenna card that may be hingeably or slidably mounted to a mobile computer.

Hirabayashi (6,535,172) discloses a small-sized antenna device and radio communication card module.

Hollander et al. (6,172,645) discloses an integrated extendable PCMCIA antenna.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a):


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA


CHARLES APPIAH
PRIMARY EXAMINER